TRI-RAIL

SMART STEP BICYCLE & PEDESTRIAN NEEDS STUDY

EXECUTIVE SUMMARY

January 2024

TPO

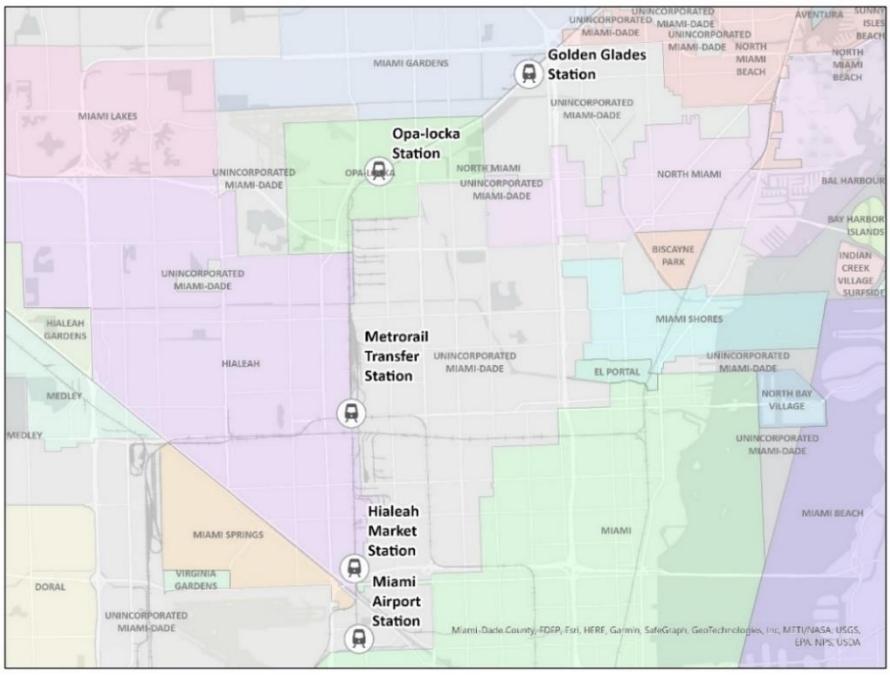
Miami-Dade Transportation Planning Organization

Executive Summary

The Miami-Dade Transportation Planning Organization (TPO) SMART STEP Bicycle and Pedestrian Needs Study is a comprehensive study that focuses on enhancing safety and increasing accessibility and connectivity to non-motorized modes of transportation for all Tri-Rail commuter train station areas in Miami-Dade County depicted in **Map 1**. The study involved stakeholders such as the Cities of Miami, Hialeah, Opa-locka, Miami Gardens, the Florida Department of Transportation (FDOT), the Miami International Airport (MIA)/Miami-Dade County Aviation Department (MDAD), and the South Florida Regional Transportation Authority (SFRTA).

Literature Review

The Tri-Rail Stations in Miami-Dade County face different opportunities and challenges as they have improved the commute for thousands of passengers in South Florida over the last decades. In preparation of this study, local plans, policies, and multiple initiatives were reviewed to understand past, existing, and future efforts of State and County agencies as well as local municipalities within 2 miles of the Miami-Dade County Tri-Rail stations. The review revealed multiple efforts to improve the pedestrian and bicycle needs in the areas near the commuter train stations. Moreover, municipalities have adopted policies in their comprehensive plans and municipal plans to improve the future development of bicycle and pedestrian facilities and improve multimodal connectivity overall. These policies were also reviewed.



Map 1: Tri-Rail Stations in Miami-Dade County

Bicycle and Pedestrian Needs per FDOT's Bicycle and Pedestrian (BP) Tool

As part of the data collection and examination of the existing conditions, an analysis of the roadways part of the State Highway System (SHS) was conducted utilizing the Bicycle and Pedestrian (BP) Tool, created by FDOT District Six. This tool highlights priority areas in an objective, data-driven manner using safety, equity, demand, and connectivity performance measures. Analyses of a 0.5-mile radius for pedestrian facilities, and 2-mile radius for bicycle facilities from each station were conducted to assess needs. Based on the data reviewed, SR 9/NW 27 Avenue, US 441/SR 7/Golden Glades Interchange, and NW 7 Avenue have 100% sidewalk gap. These segments are located next to the Golden Glades Tri-Rail Station. Segments with the highest bicycle needs in the vicinity of Tri-Rail stations are those on SR 9/NW 27 Avenue, which are adjacent to the Hialeah Market and Metrorail Transfer Tri-Rail Stations. Overall, bicycle connectivity is deficient at all stations.

Crash Data

The BP Tool and the FDOT State Safety Office GIS Query Tool were used to perform an analysis of crash data on all public roads, which is depicted in **Figure 1** and **Figure 2**. For this study, a 2-mile buffer of each of the stations was created to query crash data from 2017 to 2021. It is worthwhile mentioning that due to the proximity of the stations, reported crashes that were overlapped were not double counted for this analysis. Regarding fatalities, four (4) fatalities were recorded in

the vicinity of the Opa-locka Tri-Rail Station. This is the highest number of fatalities adjacent to a commuter train station in Miami-Dade County according to the BP Tool, followed by the Metrorail Transfer and Hialeah Market Tri-Rail Stations, with three (3) recorded fatalities each. The commuter train station with the highest pedestrian crashes is Metrorail Transfer Tri-Rail Station.

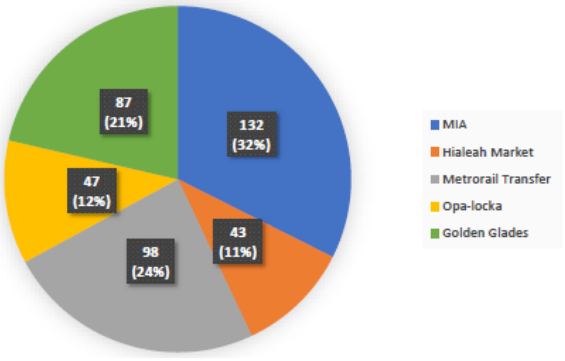


Figure 1: Total Number of Bicycle Crashes in Five (5) Tri-Rail Stations

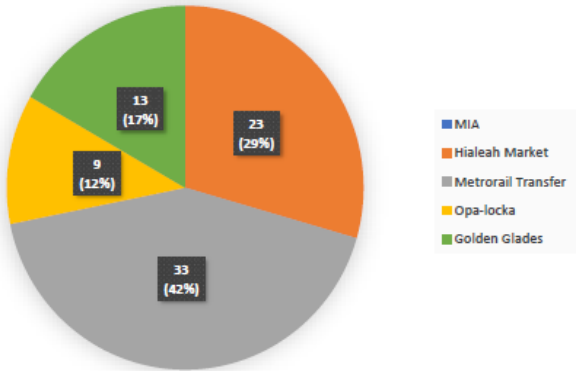
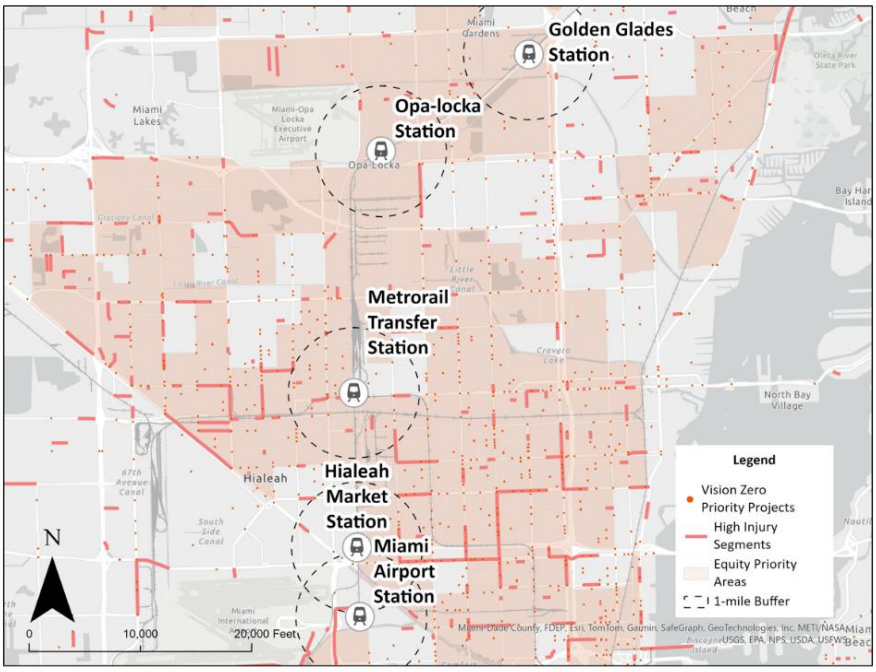


Figure 2: Total Number of Pedestrian Crashes in Five (5) Tri-Rail Stations

Miami-Dade County Vision Zero Framework

As more cities nationwide are adopting Vision Zero, there was also a need to evaluate data to better understand road safety conditions. In this process, developing a High Injury Network (HIN), or the mapping of corridors where high numbers of people have been killed or severely injured in traffic crashes, proved to be an important Vision Zero tool. A 1-mile buffer was used to include high injury intersections and segments that do not overlap with other stations as seen in **Map 2**. Based on our review, the Tri-Rail station with the highest number of high injury intersections and segments within a 1-mile buffer is the Metrorail Transfer Tri-Rail Station. On the contrary, the commuter train station with the lowest number of high injury intersections or segments is the Opa-locka Tri-Rail Station.



Map 1: High Injury Network within a 1-mile radius of Tri-Rail Stations

Existing Land Uses

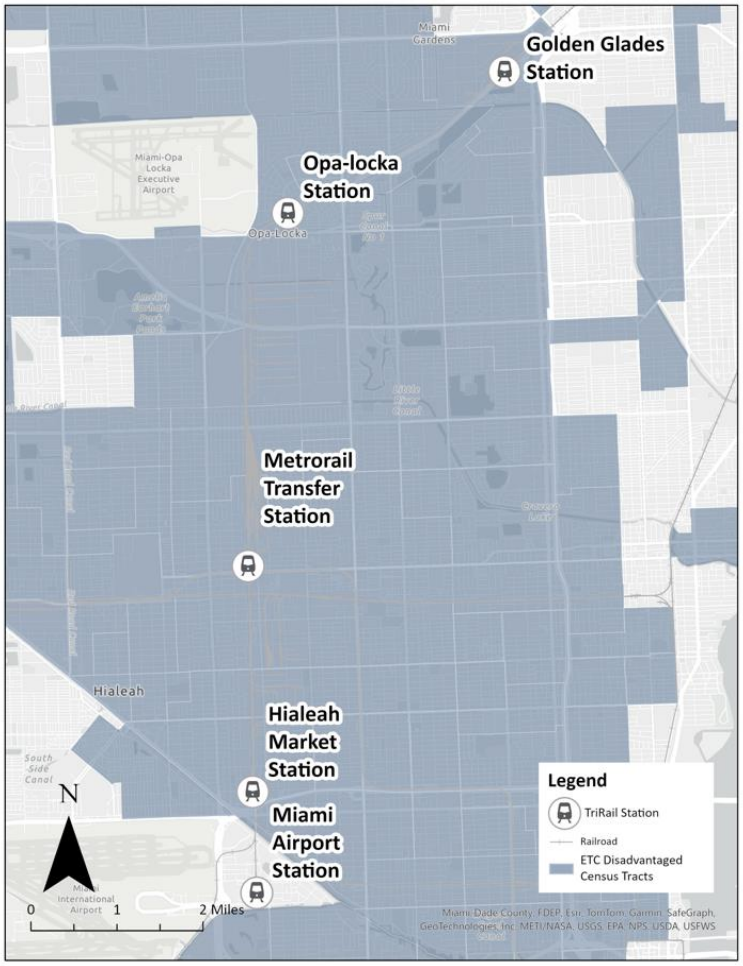
Analysis of the existing land use for each of the stations corroborates that the Miami International Airport Tri-Rail Station is isolated from points of interest such as adult education facilities, schools, medical facilities, and parks. In contrast, the Metrorail Transfer Tri-Rail Station is surrounded by several points of interest and future residential developments as part of the proposed Transit Oriented Development zoning district of the City of Hialeah.

Under 18 and over 65 population

Population under 18 years old and over 65 years old were included in the analysis as they may experience "*transit dependency*." Population under 18 years old is prevalent on the north side of the Metrorail commuter train station and in tracts north of the Opa-locka Tri-Rail Station. With regards to population over 65 years old, both the Opa-Locka and Golden Glades Tri-Rail Stations have a low density of elderly population. The MIA Tri-Rail Station has a significantly higher density of elderly population in tracts south of the station. Further, the Metrorail Transfer Tri-Rail Station has significant clusters of elderly population on the west side of the station.

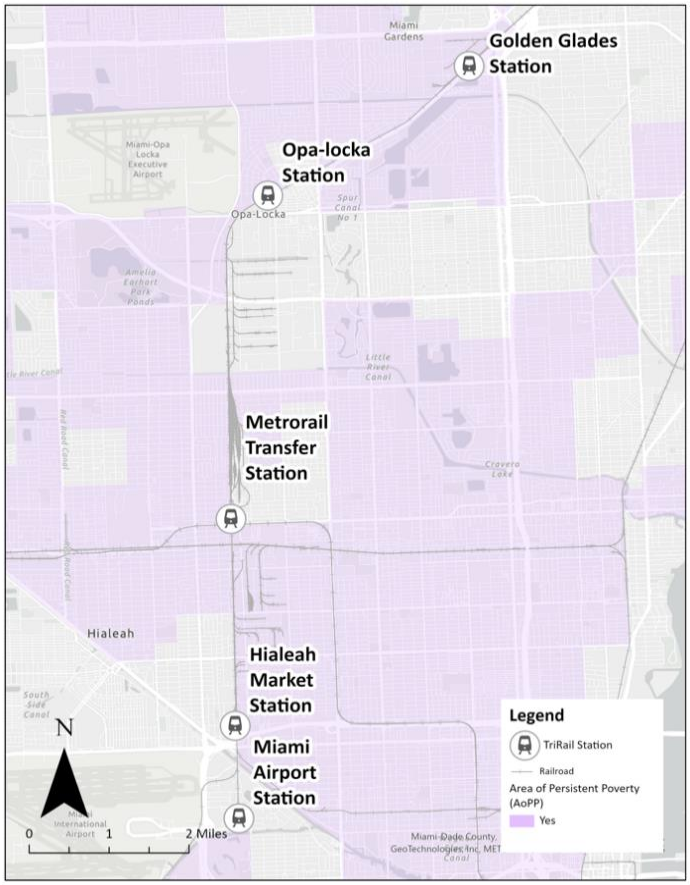
Equity Analysis per the USDOT Equitable Transportation Community (ETC) Explorer Tool

The equity and socioeconomic analysis demonstrated that all stations are in the vicinity of areas that face transportation insecurity and areas of persistent poverty/historical disadvantaged communities. As depicted in **Map 3**, at the Hialeah Market, Metrorail Transfer, and Opa-locka Tri-Rail Stations, more than one (1) Census tract was identified since the locations of these stations are adjacent or within the boundaries of several census tracts. For example, the Census tracts within or adjacent to the Opa-locka Tri-Rail Station have the highest level of poverty and the highest level of transportation cost burden. The Metrorail Transfer, Hialeah Market, and Golden Glades Tri-Rail Stations have tracts that are over 40% of poverty level. The ETC tool indicates that census tracts within the Metrorail Transfer, Hialeah Market, and Opa-locka Tri-Rail Stations spend more than 30% of their income in transportation, causing a high level of cost burden. With regards to access, only one (1) census tract by the Metrorail Transfer Tri-Rail Station has more than 20% of households without personal vehicle. In contrast, the Miami International Airport Tri-Rail Station has no households without personal vehicles. Additionally, the ETC tool indicates that the Metrorail Transfer Tri-Rail station has census tracts within or adjacent to the station that are served by lots of transit. Further, the Miami International Airport Tri-Rail Station is the only station that does not have any adult education, grocery store, medical facilities, or parks within a 15-minute walk. The ETC tool also indicates that adult education facilities are not within a 15-minute walk in neither of the five (5) commuter train stations.



Map 2: Tri-Rail Stations and Disadvantaged Census Tracts

In addition to the ETC Tool, an examination of the "*Areas of Persistent Poverty*" (AoPP) and "*Historically Disadvantaged Communities*" (HDC) was conducted for this study for areas adjacent to all Tri-Rail stations, as depicted in **Map 4**. All the commuter train stations have pockets of AoPP and HDCs. However, the 0.5-mile radius of the Metrorail Transfer and Golden Glades Tri-Rail Stations are fully covered by HDCs. Miami-Dade County has one of the highest percentages of Hispanic/Latino population in the state of Florida; and, per the 2020 Census Demographic, most of the Census tracts located within or adjacent to these stations have greater than 85% of Hispanic Population. The prevalence of this population may indicate linguistic isolation or limited educational options due to language barriers and may have less



Map 3: Tri-Rail Stations and AoPP Census Tracts

labor opportunities or underemployment. Consequently, these Census Tracts remain categorized as AoPP/HDC. Further, the housing costs countywide have increased exponentially compared to previous years. Miami-Dade County experiences a housing affordability crisis as half of the county households are cost burdened by housing, meaning that they spend over 30% of their income on shelter. According to the ETC Tool, the housing burden percentage is at 75%, which means that most of the population in the county experience housing burden. Census Tracts within or adjacent to each of the stations are categorized as AoPP/HDC due to the overall high housing cost burden and substandard housing. Finally, census tracts adjacent or within the Tri-Rail stations may experience disproportionate environmental stressor burden and high cumulative impacts due to the proximity to high volume expressways or may be exposed to a higher level of diesel particulate matter. The Miami International Airport, Hialeah Market, and the Golden Glades Tri-Rail Stations are adjacent to highly traveled and congested corridor that have high traffic volumes. Therefore, the communities adjacent or within these stations are designated as AoPP or HDC due to their proximity to highways and exposure of diesel and noise pollution.

Access Mode Data Collected

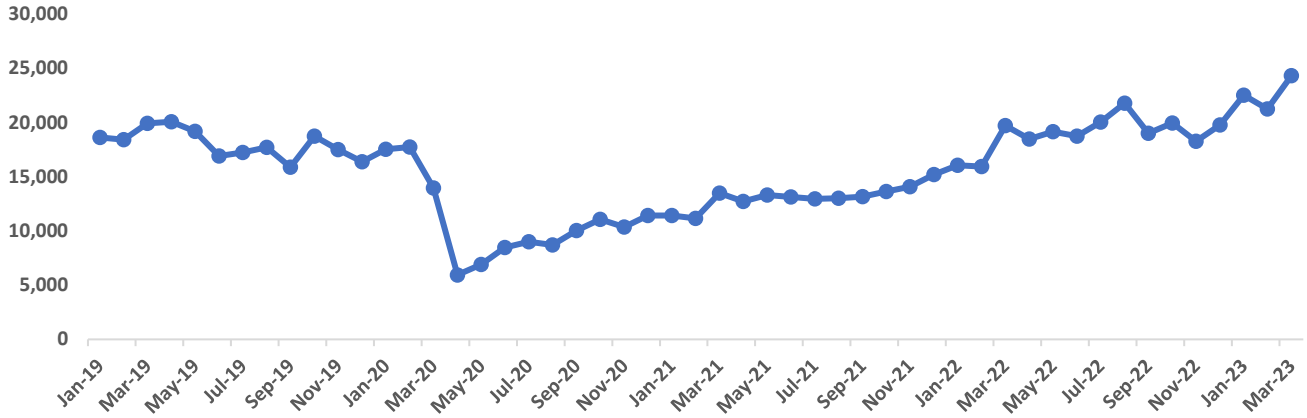
Access mode data collected from Tri-Rail Stations during weekday peak time hours on Wednesday, May 3, 2023, demonstrates the different dynamics and travel behaviors of commuters. For instance, at the Miami International Airport Tri-Rail Station, while pedestrian access to the station on the north side of the station is more prevalent than on the south side, bicycle counts were higher on the south side of the station instead. Overall, the Metrorail Transfer Tri-Rail Station has the highest number of pedestrian and bicycle counts at all Tri-Rail Stations of Miami-Dade County. The morning hours, from 5:30 a.m. to 9:30 a.m., had the highest counts for pedestrians and bicyclists, both "*in*" and "*out*" of the station. In contrast, at the Opa-locka Tri-Rail Station, the highest number of pedestrian counts entering the station were during the morning, but the highest number of pedestrian counts exiting were during evening hours, which might indicate a typical commuter service pattern. This also means that a significant number of commuters live nearby in residential neighborhoods, and they use Tri-Rail for a regional transportation movement pattern. In addition, the Golden Glades Tri-Rail station has the highest number of bicycles entering the station during evening hours and the second highest number of overall pedestrian and bicycle counts in Miami-Dade County, despite being isolated from local roads in contrast with the rest of stations.

South Florida Regional Transportation Authority (SFRTA) Data Collected

Since the inception of SFRTA and the start of the Tri-Rail operation, Tri-Rail stations in Miami-Dade have faced different opportunities and challenges as they have improved the commute for millions of passengers in South Florida over the last decades. Data from SFRTA shows a 30% increase of bicycle counts on trains from March 2022 to June 2023 since the pre-pandemic months in 2019 as depicted in **Figure 3**. In addition to ridership information, SFRTA provided bicycle, wheelchair, scooter counts during the months of January, February, and March of 2023. According to the SFRTA data, the station with the highest amount of ridership per weekday is the Miami International Airport Tri-Rail Station, followed by the Metrorail Transfer Tri-Rail Station. In contrast, the station with the lowest amount of ridership is the Hialeah Market Tri-Rail Station,

with less than 4,100 passenger counts per week. With regards to bicycle counts, the Metrorail Transfer Tri-Rail Station has the highest number of bicycle counts per week and per day. Additionally, scooter and wheelchair counts during the months of February and March of 2023 were provided as well by SFRTA. The increase of the use of scooters is prevalent as an alternative mode for short trips and active transportation. The use of scooters and wheelchairs during March 2023 is significantly higher than in February 2023.

Figure 3: Bicycle Counts on Trains from January 2019 to March 2023



Transit Data Collected

In addition to the data provided by SFTRA, the Miami-Dade County Department of Transportation and Public Works (DTPW), in charge of the operation of the transit system in Miami-Dade County, provided ridership information of routes 32, 42, 135, and L/112 servicing the Hialeah Market, Metrorail Transfer, and Opa-locka Tri-Rail Stations. The station with the highest number of bus ridership is the Opa-locka Tri-Rail Station, where transportation dynamics resemble a typical pattern seen at commuter train stations nationwide. This also means that a significant number of commuters live nearby in the residential neighborhoods, and they use Tri-Rail for regional transportation. It is worth mentioning that bus route 135, servicing the Opa-locka Tri-Rail Station, transporting passengers from the Hialeah Market Station to the Florida International University (FIU) Biscayne Bay Campus in the City of North Miami, has the highest amount of ridership.

Site Visits Data Collected

Data collected from the desktop review and literature research was complemented by five (5) site visits, conducted at all five (5) Tri-Rail stations and the future Tri-Rail Station in Downtown Miami, shared with Brightline at MiamiCentral. In addition to site visits, meetings with the municipalities of Miami, Hialeah, Miami Gardens, and Opa-locka took place between April and July of 2023. Staff from each municipality provided input and showcased proposed local improvements that are planned in the vicinity of each of the stations.

During these site visits, common issues were observed such as lack of detectable warning surfaces at intersections, pushbuttons that do not comply with the Americans with Disabilities Act (ADA) criteria, sidewalks with cracks or that are incomplete, as well as bus stops and transit facilities that are not well-maintained. Regarding bicycle parking, most of it is not shaded, and sometimes crowded as witnessed at the Metrorail Transfer Tri-Rail Station. Further, only the Opa-locka Tri-Rail Station has a designated bicycle lane next to the station, and the MiamiCentral Tri-Rail Station is the only station that provides bikesharing. The Miami International Airport (MIA) Tri-Rail Station elevator experienced several issues as it was closed during the site visit. Lastly, the Golden Glades Tri-Rail Station does not provide connection to the Miami Gardens area and it remains isolated from the area's roadway grid.

Site Visit at the MIA Station

Site Visit at the Hialeah Market Station

Site Visit at the Metrorail Transfer Station

Site Visit at the Opa-locka Station

Site Visit at the Golden Glades Station

Site Visit at the MiamiCentral Station

Potential Systemwide Improvements

After field data examination, site visits, and desk analysis, recommendations were developed for addressing bicycle and pedestrian infrastructure needs. Recommended improvements include wayfinding at Tri-Rail Stations, bicycle parking, high intensity pedestrian crossings, bicycle access ramps, bicycle decals, shared use pathways, bicycle-oriented development, bike sharing stations, outreach and educational campaigns for bicycle usage, pedestrian and bicycle crossings at railroad tracks, rectangular, rapid flashing beacons (RRFBs), micromobility parking, and bicycle storage at Tri-Rail stations are some of the main systemwide recommendations.

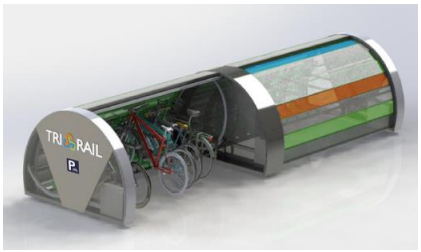
Pedestrian Wayfinding

Bicycle Wayfinding

Bus Wayfinding

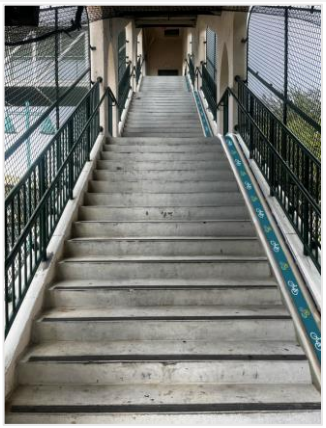
You're Here Signage

Micromobility wayfinding



Bike Parking Prototype

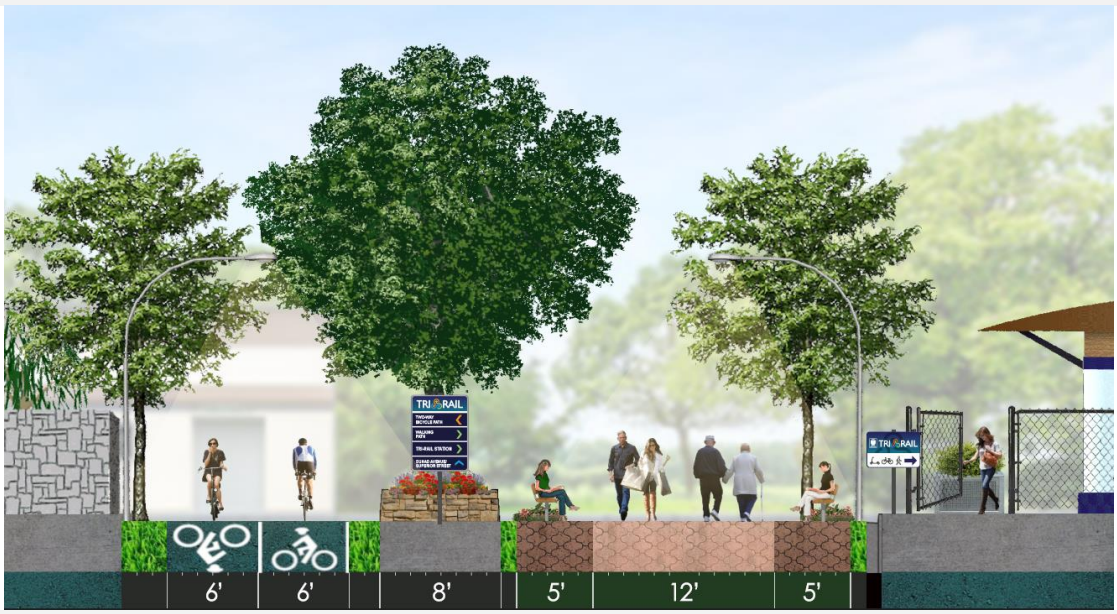
Bicycle Storage



Bicycle Access Ramp

Example of train cart labeling

Example of Bicycle and Scooter Decals as Visual Aids



Rendering of potential pedestrian and bicycle pathway at the Opa-Locka Tri-Rail Station

Potential Station-Specific Recommendations

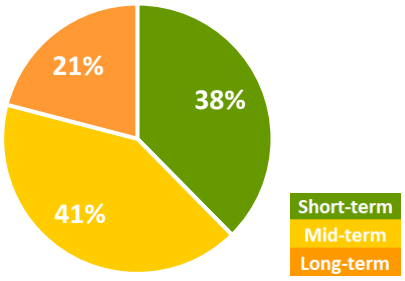
Improvements inside the stations, include:

- ✓ Bicycle Improvements such as installing shaded bicycle parking, bicycle repair stations adjacent to bicycle parking areas, as well as bicycle access ramps on stairways when feasible. Improvements also include restoring the existing (but never opened to the public) bicycle center at the Miami International Airport Tri-Rail Station
- ✓ Signage and wayfinding improvements involving the replacement of old and outdated units.
- ✓ Micro-mobility improvements considering the implementation of pilot programs for e-scooter or bikesharing services.
- ✓ Maintenance improvements that address deficiencies along footways or stairways as well as defective detectable warning surfaces with the stations' premises

The improvements outside the station and/or on adjacent streets include:

- ✓ Pedestrian Improvements such as closing sidewalk gaps, addressing sidewalk deficiencies, enhancing crosswalks, and making signalized intersections safer for pedestrians.
- ✓ Bicycle improvements such as shared use pathways or bicycle lanes
- ✓ Safety and ADA improvements, especially at railroad crossings or at mid-block crossing locations

Figure 4: Overall Distribution of Costs per Implementation Timeframe



✓ Enforcement initiatives to address issues such as illegal on-street parking or blocking bicycle lanes or footways.

With regards to the timeframe for implementation of the proposed improvements, which may involve different municipalities and agencies, the following time periods were used as benchmark: short (0-2 years), medium (3-5 years), and long (5 or more years). Estimate assumptions and research are further included in the Final Report. The recommended items also include concrete bicycle ramps, bus shelters, removal of existing concrete, concrete sidewalk, detectable warning surfaces, signs, pavement markings, among others. The sitework prices were obtained from the Florida Department of Transportation Item Average Unit Cost from July 1, 2022, to September 30, 2023, specifically for Market Area No. 13 (Miami-Dade County). This cost estimate assumed the following rates for additional elements:

- Mobilization – 6% construction cost subtotal
- Design – 12% construction cost subtotal
- CEI– 12% construction cost subtotal
- Utilities/Permitting – 3% construction cost subtotal.
- Contingency – 20% construction cost subtotal

The preliminary cost estimate for all five (5) Tri-Rail commuter train stations is approximately $1.3 million for all short, mid-, and long-term improvements. The total estimated cost of short-term improvements being $492,512, and the total estimated cost for mid-term improvements being $540,374. Several proposed long-term improvements include feasibility studies and/or warrant studies, which were not included in the cost estimate. Thus, for long-term improvements, the total estimated cost is $273,108. **Table 1** depicts overall costs per station, and **Figure 4** shows the percentage of cost for short-, mid-, and long-term improvements.

Table 1: Summary of total Estimated Cost of Recommended Improvements

	SHORT-TERM IMPROVEMENT COST	MID-TERM IMPROVEMENT COST	LONG-TERM IMPROVEMENT COST	TOTAL COST
MIA Tri-Rail Station	$272,172	$100,612	$29,590	$402,375
Hialeah Market Tri-Rail Station	$3,481	$240,102	$0.00	$243,582
Metrorail Transfer Tri-Rail Station	$194,077	$64,702	$12,931	$271,711
Opa-locka Tri-Rail Station	$8,245	$35,013	$230,587	$273,844
Golden Glades Tri-Rail Station	$12,768	$99,945	$0.00	$112,713

Several proposed improvements may be implemented by municipalities and Miami-Dade with the support and partnership of regional agencies as depicted in **Table 2** through **Table 6**.

Next Steps

Recommendations will be discussed with stakeholders to be included in the upcoming the 2026-2030 Transportation Improvement Plan (TIP) and/or SFRTA/municipality Capital Improvement Program (CIP) or Maintenance Budget as appropriate.

Map 4: Proposed Improvements at the Miami International Airport Tri-Rail Station

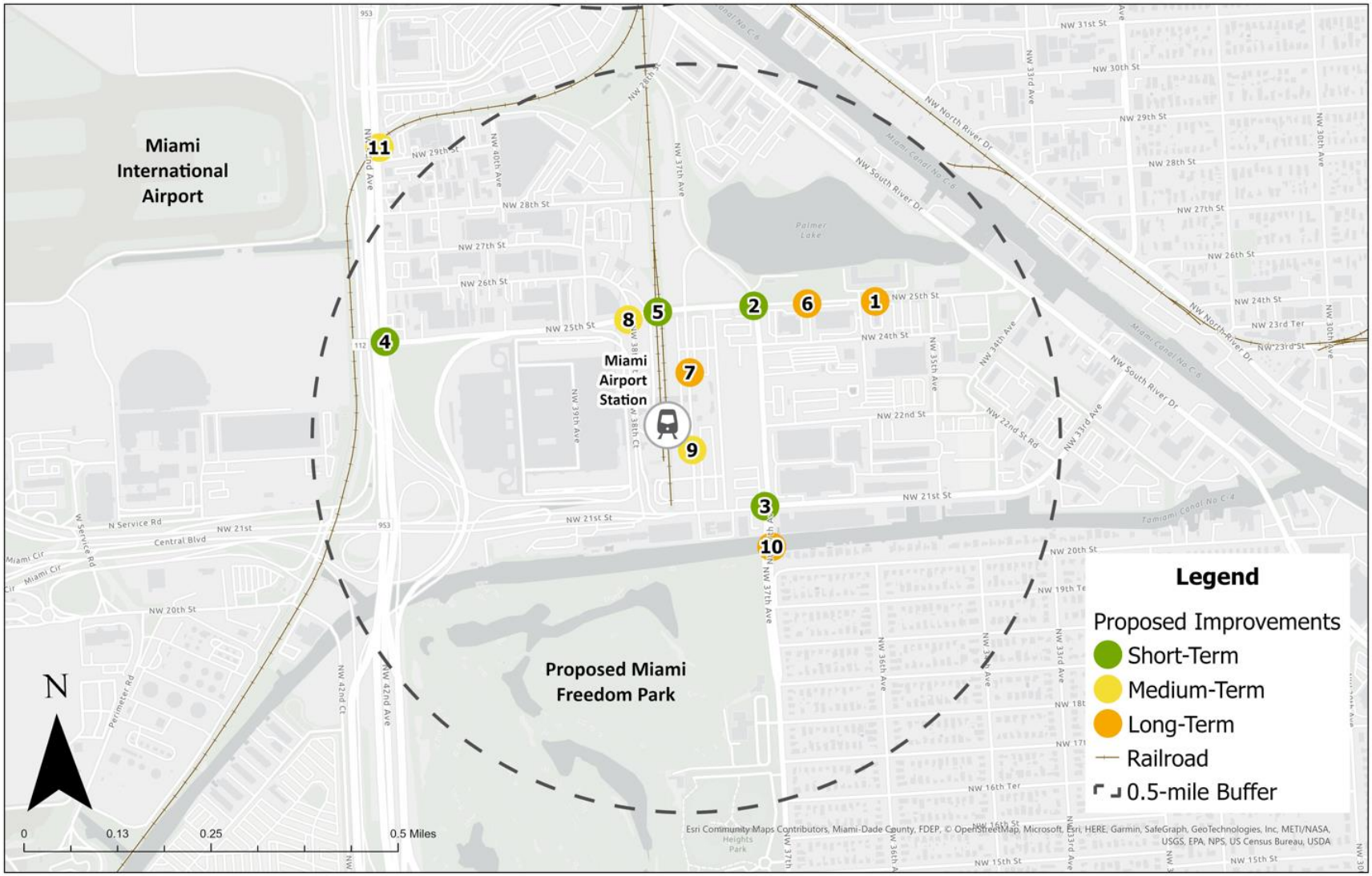


Table 2: Proposed Improvements at the Miami International Airport Tri-Rail Station

	No.	Improvement Name	Partners	Potential Funding Sources	Estimated Cost
Miami Airport Tri-Rail Station	1	Sidewalk completion the southside of NW 25 Street, between NW 37 Avenue to NW S River	County (DTPW)	STBG, HSIP, HBRRP, RAISE, SS4A	$18,581
	2	Pedestrian and ADA improvements at the intersection of NW 25 Street and NW 37 Avenue including replacement of detectable warning surfaces, ADA ramps, high intensity pedestrian crossings	County (DTPW)	STBG, HSIP, HBRRP, RAISE, SS4A	$74,872
	3	Pedestrian and ADA improvements at the intersection NW 21 Street and NW 37 Avenue including replacement of detectable warning surfaces, ADA ramps, high intensity pedestrian crossings	County (DTPW)	STBG, HSIP, HBRRP, RAISE, SS4A	$88,217
	4	Parking enforcement and the installation of regulatory signs to discourage illegal parking on NW 25 Street.	County (DTPW)	County general funds	$3,448
	5	Pedestrian and ADA improvements at the railroad tracks, including the installation of detectable warning surfaces, ADA ramps, the installation of railroad pedestrian/bicycle crossing gates.	County (DTPW) and SFRTA	STBG, HSIP, HBRRP, RAISE, SS4A	$92,703
	6	Implementing one of the SMART Trails (Connector No. 513[1]) from NW 21 Street to NW 28 Street connecting to NW South River Drive	State (FDOT) and County (DTPW)	STBG, HSIP, HBRRP, RAISE, SS4A	Feasibility study needed
	7	Reactivation of the bicycle center and providing shaded bicycle parking	County (MDAD)	STBG, HSIP, HBRRP, INFRA, SS4A	Feasibility study needed
	8	Pedestrian and ADA improvements at the intersection of NW 38 Court and NW 25 Street , including the installation of RRFB, high intensity pedestrian crossings, pedestrian pushbutton, ADA ramps, and detectable warning surfaces.	County (DTPW)	STBG, HSIP, HBRRP, RAISE, SS4A	$80,640
	9	Wayfinding improvements for the bicycle center, bicycle parking, bus stops, station platforms, and area maps*	SFRTA	RAISE, INFRA, SS4A	$12,931
	10	Pedestrian improvements at the intersection of NW 37 Avenue and NW 21 Street, NW 21 Street - Intersection improvements include: RRFB and high intensity ped crossings, ADA detectable warning surfaces, ADA pushbuttons, ADA ramps.	County (DTPW)	STBG, HSIP, HBRRP, RAISE, SS4A	$11,010
	11	Closing sidewalk gap on the east side of SR-953/NW 42 Avenue/LeJeune Road, from NW 29 Street to NW 31 Street, and along NW 29 Street between SR 953/NW 42 Avenue/LeJeune and NW 40 Avenue	State (FDOT)	STBG, HSIP, HBRRP, RAISE, SS4A	$19,973

Short-term
Mid-term
Long-term

Legend for Funding Sources:

***CMAQ**: Congestion Mitigation and Air Quality Improvement Program*
***HRRP**: Highway Bridge Replacement & Rehabilitation*
***HSIP**: Highway Safety Improvement Program*
***INFRA**: Infrastructure for Rebuilding America Discretionary Grant Program*
***RAISE**: Rebuilding American Infrastructure with Sustainability and Equity*
***SS4A**: Safe Streets and Roads for All*
***STBG**: Surface Transportation Block Grant Program*

[1] FDOT Bicycle Connectivity Assessment (arcgis.com)

Map 5 Proposed Improvements at the Hialeah Market Tri-Rail Station

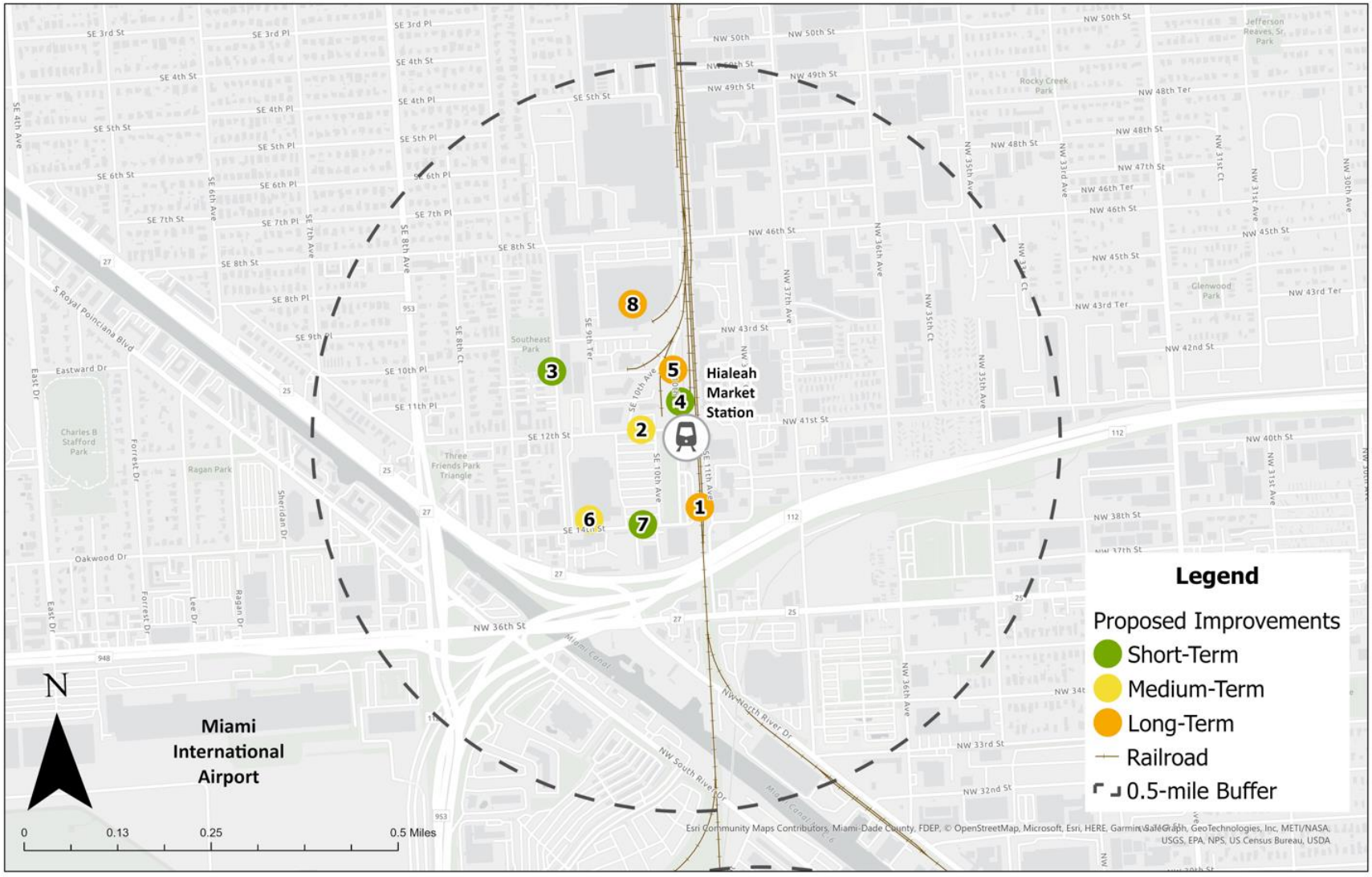


Table 3: Proposed Improvements at the Hialeah Market Tri-Rail Station

	No.	Improvement Name	Potential Partners	Funding Sources	Estimated Cost
Hialeah Market Tri-Rail Station	1	Providing an east-west connection to avoid illegal railroad track crossing from SE 14 Street to NW 38 Avenue after the MR-MICCI project is completed.	State (FDOT) and SFRTA	STBG, HSIP, HBRRP, RAISE, SS4A	Feasibility study needed
	2	Closing sidewalk gaps and providing better connection to neighborhood on SE 14 Street/Avenue, SE 11 Street, SE 12 Street, SE 9 Avenue, SE 9 Court. Improvements include sidewalk repairs, landscape maintenance, lighting, ADA ramps, as well as detectable warning surfaces to enhance walkability.	City (Hialeah)	STBG, HSIP, HBRRP, RAISE, SS4A	$180,953
	3	Implementation of micro-mobility pilot program between the Tri-Rail Station and Southeast Park. *	City (Hialeah) supported by SFRTA	SS4A, FHWA CMAQ	Needs coordination with stakeholders
	4	Maintenance and cleaning of the area surrounding the Hialeah Seaboard Air Line Railway Station (Hialeah Depot)	State (FDOT)	Historic Preservation Federal Funding, Florida Historic Preservation Grants	Needs coordination with stakeholders
	5	Rehabilitation/Restoration of the Hialeah Seaboard Air Line Railway Station *	State (FDOT)	Historic Preservation Federal Funding, Florida Historic Preservation Grants	Needs coordination with stakeholders
	6	Pedestrian improvements that include addressing ADA concerns on SE 12 Street and closing sidewalk gaps	City (Hialeah)	STBG, HSIP, HBRRP, RAISE, SS4A	$59,149
	7	Removing oversized pipes from the footway, and repairing cracks on sidewalk on SE 14 Street	City (Hialeah)	City general funds	$3,481
	8	Implement potential pathway to connect "*Factory Town*" with the Tri-Rail Station[2].	City (Hialeah), County (DTPW), and Private Funding	STBG, HSIP, HBRRP, RAISE, SS4A	Needs coordination with stakeholders

** Denotes improvements inside the station*

Short-term
Mid-term
Long-term

Legend for Funding Sources:

***CMAQ**: Congestion Mitigation and Air Quality Improvement Program*
***HRRP**: Highway Bridge Replacement & Rehabilitation*
***HSIP**: Highway Safety Improvement Program*
***INFRA**: Infrastructure for Rebuilding America Discretionary Grant Program*
***RAISE**: Rebuilding American Infrastructure with Sustainability and Equity*
***SS4A**: Safe Streets and Roads for All*
***STBG**: Surface Transportation Block Grant Program*

[2] This pathway is part of the vision of the City of Hialeah's TOD, and it aims to connect the Tri-Rail Station to the event venue ("*Factory Town*") on NW 37 Avenue. Pathway trail design elements include pedestrian lighting, a bicycle path, natural landscape features, wooden walking trail, retention pond, playground, neighborhood garden, a plaza, and viewing platform.

Map 6: Proposed Improvements at the Metrorail Transfer Tri-Rail Station

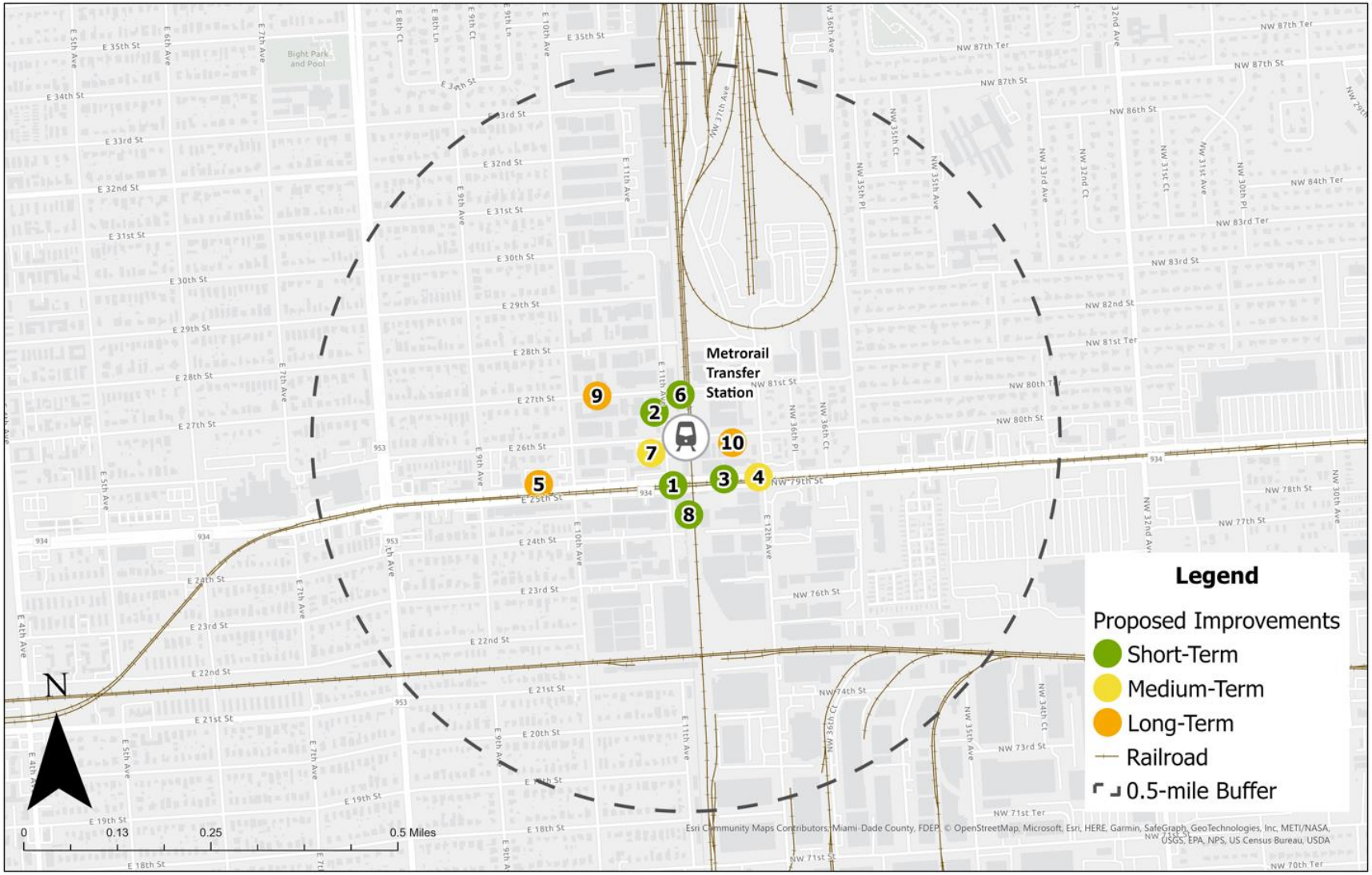


Table 4: Proposed Improvements at the Metrorail Transfer Tri-Rail Station

	No.	Improvement Name	Potential Partners	Funding Sources	Estimated Cost
Metrorail Transfer Tri-Rail Station	1	Crossing improvements on East 25 Street, between railroad tracks and East 11 Avenue, including RRFB for mid-block crossing, high intensity pedestrian crossings, pedestrian pushbutton, ADA ramps, and detectable warning surfaces.	State (FDOT)	STBG, HSIP, HBRRP, RAISE, SS4A	$143,338
	2	Repairing cracks on sidewalks on East 11 Avenue by the Tri-Rail Station's entrance	City (Hialeah)	STBG, HSIP, HBRRP, RAISE, SS4A	$12,978
	3	Parking enforcement and installing regulatory signs to discourage illegal parking along East 25 Street.	City (Hialeah) supported by SFRTA	City general funds	$10,345
	4	Repairing bus stop sign and improving bus stop area and amenities on East 25 Street, between railroad tracks and NW 37 Avenue.	County (DTPW) and State (FDOT)	RAISE, INFRA, SS4A	$64,702
	5	Accommodating access and improving footways by ongoing TODs along East 25 Street, from East 8 Avenue to East 11 Avenue.	State (FDOT)	STBG, HSIP, HBRRP, RAISE, SS4A	Needs coordination with stakeholders
	6	Adding bicycle access ramps on each of the Tri-Rail Station's stairways. *	SFRTA	RAISE, INFRA, SS4A	$13,052
	7	Supporting a micro-mobility pilot program at this station in coordination with the City of Hialeah and Miami-Dade County*	City (Hialeah) and SFRTA	SS4A, FHWA CMAQ	Needs coordination with stakeholders
	8	Add more shaded bicycle parking areas with a bicycle repair station*	SFRTA	Reconnecting communities pilot programs, FHWA CMAQ, INFRA, SS4A	$14,364
	9	Connecting Tri-Rail station with the East 27 Street proposed bicycle path (Connector No. 104[3])	County (DTPW)	STBG, HSIP, HBRRP, INFRA, SS4A	Needs coordination with stakeholders
	10	Wayfinding improvements for the bicycle repair station, bicycle parking, bus stops, station platforms, and area maps *	SFRTA	RAISE, INFRA, SS4A	$12,931

* *Denotes improvements inside the station*

Short-term
Mid-term
Long-term

Legend for Funding Sources:

***CMAQ**: Congestion Mitigation and Air Quality Improvement Program*
***HRRP**: Highway Bridge Replacement & Rehabilitation*
***HSIP**: Highway Safety Improvement Program*
***INFRA**: Infrastructure for Rebuilding America Discretionary Grant Program*
***RAISE**: Rebuilding American Infrastructure with Sustainability and Equity*
***SS4A**: Safe Streets and Roads for All*
***STBG**: Surface Transportation Block Grant Program*

[3] FDOT Bicycle Connectivity Assessment (arcgis.com)

Map 7: Proposed Improvements at the Opa-locka Tri-Rail Station

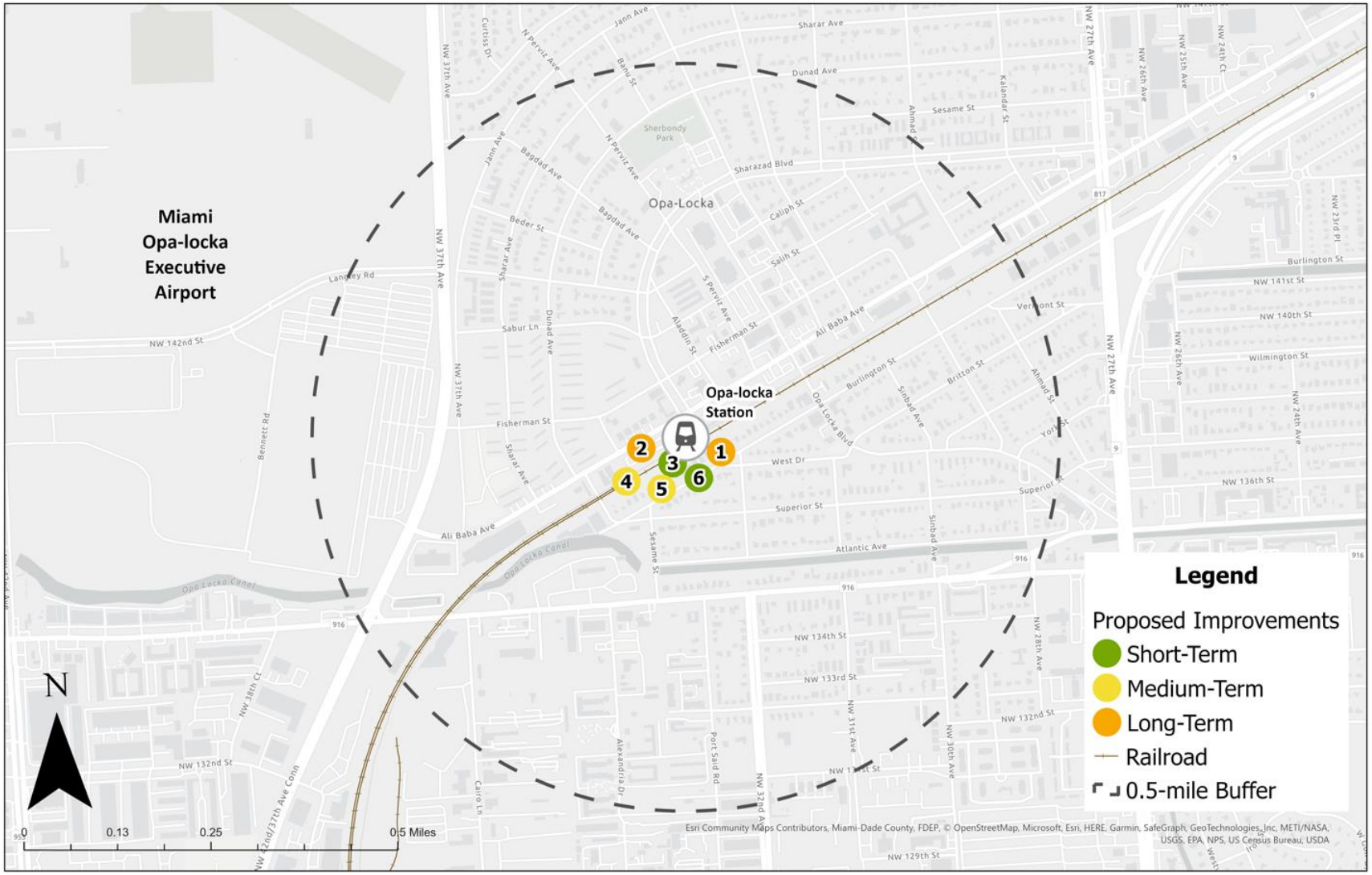


Table 5: Proposed Improvements at the Opa-locka Tri-Rail Station

	No.	Improvement Name	Potential Partners	Funding Sources	Estimated Cost
Opa-locka Tri-Rail Station	1	Implement potential shared use pathway along the City's easement from Dunad Avenue to Opa-Locka Boulevard, including design elements such as: pedestrian lighting, a bicycle path, natural landscape features, and street furniture amenities	City (Opa-locka)	HSIP, FHWA CMAQ, STBG, Rails to Trails	$230,587
	2	Crossing and intersection improvements on Ali Baba Avenue, including RRFBs for mid-block crossings, high intensity pedestrian crossings, pedestrian pushbutton, ADA ramps, detectable warning surfaces.	City (Opa-locka)	STBG, HSIP, HBRRP, RAISE, SS4A	Feasibility study needed
	3	Reinstallation of detectable warning surfaces on Ali Baba Avenue at the following crossings: ✓ Ali Baba Avenue and exit of Tri-Rail Station ✓ Ali Baba Avenue and entrance of Tri-Rail Station ✓ Ali Baba Avenue and Sharazad Boulevard ✓ Ali Baba Avenue and Sesame Street ✓ Ali Baba Avenue and Dunad Avenue (north and south crossings) ✓ Ali Baba Avenue and Sharar Avenue Ali Baba Avenue and Aladdin Street	City (Opa-locka)	INFRA, City funds	$8,245
	4	Replacing fire hydrant located on Ali Baba Avenue between entrance and exit of Tri-Rail Station	City (Opa-locka) and State (FDOT)	City funds	$11,172
	5	ADA access improvements to address concerns identified at the only pedestrian entrance of the Tri-Rail Station, requiring the ADA ramp to be replaced and detectable warning surfaces to be reinstalled.*	State FDOT) and SFRTA	INFRA, City funds	$10,909
	6	Wayfinding improvements for the bicycle repair station, bicycle parking, bus stops, station platforms, and area maps *	SFRTA	RAISE, INFRA, SS4A	$12,931

Short-term
Mid-term
Long-term

**Denotes improvements inside the station*

Legend for Funding Sources:

***CMAQ**: Congestion Mitigation and Air Quality Improvement Program*
***HRRP**: Highway Bridge Replacement & Rehabilitation*
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Map 8 Proposed Improvements at the Golden Glades Tri-Rail Station

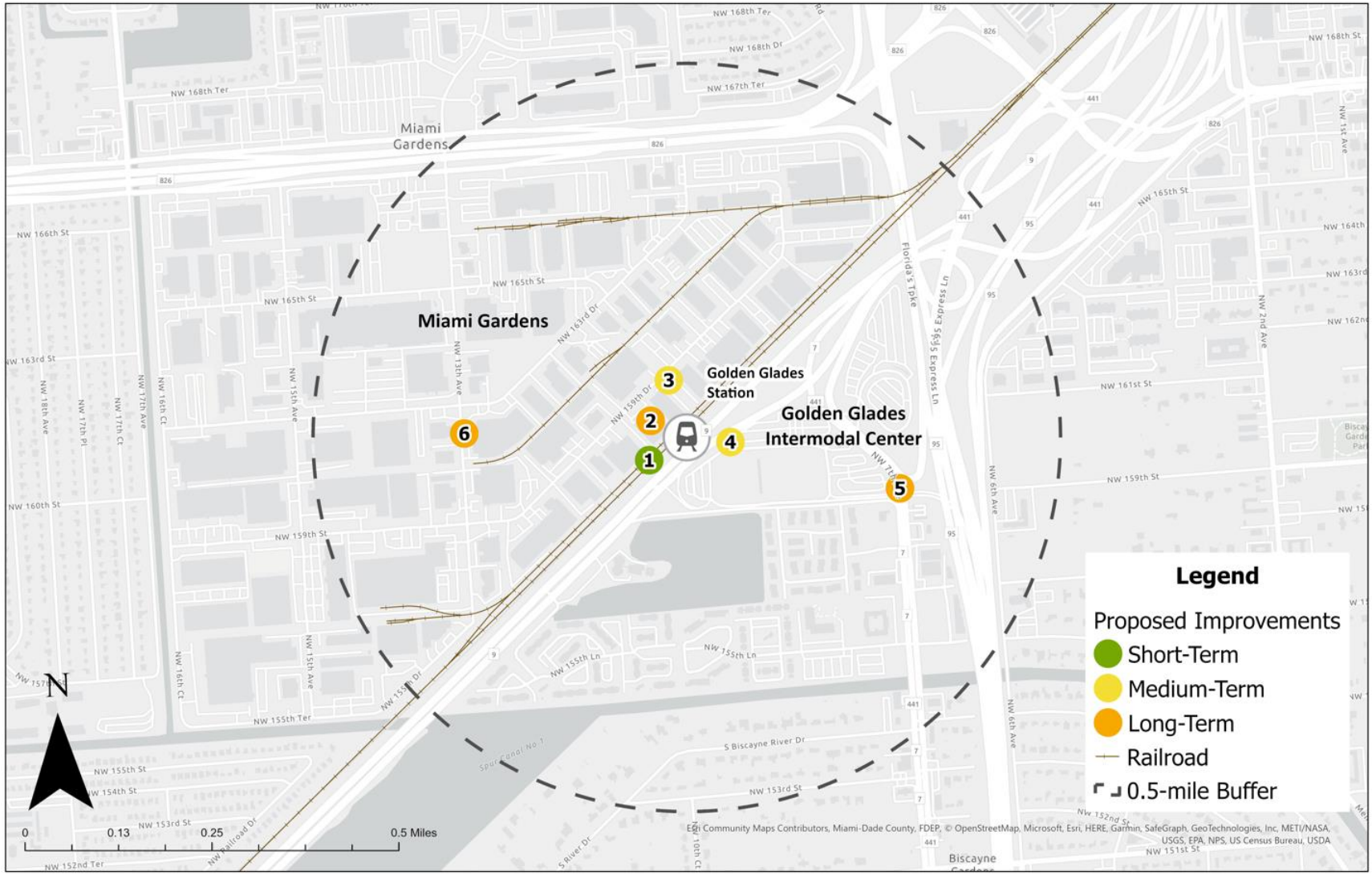

Table 6: Proposed Improvements at the Golden Glades Tri-Rail Station

	No.	Improvement Name	Potential Partners	Funding Sources	Estimated Cost
Golden Glades Tri-Rail Station	1	Signage/wayfinding improvements for the bicycle repair station, bicycle parking, bus stops, station platforms, and area maps *	SFRTA	RAISE, INFRA, SS4A	$12,931
	2	Implement proposed improvements resulting from the *Golden Glades Multimodal Transportation Facility Bike & Pedestrian Eastside Connectivity Study* (2022) and the *Golden Glades Interchange Overpass and Kiss and Ride* (G1H81/443861-1)	State (FDDOT)	State funding	Design/Const. and PD&E ongoing
	3	Repairing sidewalks cracks, holes, and missing signs along NW 159 Drive from NW 13 Avenue to NW 8 Avenue in preparation for the Kiss-and-Ride facility proposed to connect the Tri-Rail Station with the western side of the railroad tracks.	City (Miami Gardens)	City funds, STBG, HSIP, HBRRP, RAISE, SS4A	$87,014
	4	Improving bicycle parking, providing a bicycle repair stations, and adding bicycle access ramps at areas close to the platform and adjacent to the Golden Glades Intermodal Transit Center*	SFRTA	Reconnecting communities, FHWA CMAQ, INFRA, SS4A	$12,768
	5	Implementing bicycle network connections to the proposed Memorial Trail (Connection No. 518[4]).	State (FDOT) and County (DTPW)	STBG, HSIP, HBRRP, RAISE, SS4A	Feasibility study needed
	6	Implement the NW 12 Avenue bicycle network from NW 175 Street to NW 155 Drive	State (FDOT) and County (DTPW)	STBG, HSIP, HBRRP, RAISE, SS4A	Feasibility study needed

** Denotes improvements inside the station*

Short-term
Mid-term
Long-term

Legend for Funding Sources:

***CMAQ**: Congestion Mitigation and Air Quality Improvement Program*
***HRRP**: Highway Bridge Replacement & Rehabilitation*
***HSIP**: Highway Safety Improvement Program*
***INFRA**: Infrastructure for Rebuilding America Discretionary Grant Program*
***RAISE**: Rebuilding American Infrastructure with Sustainability and Equity*
***SS4A**: Safe Streets and Roads for All*
***STBG**: Surface Transportation Block Grant Program*

[4] FDOT Bicycle Connectivity Assessment (arcgis.com)

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